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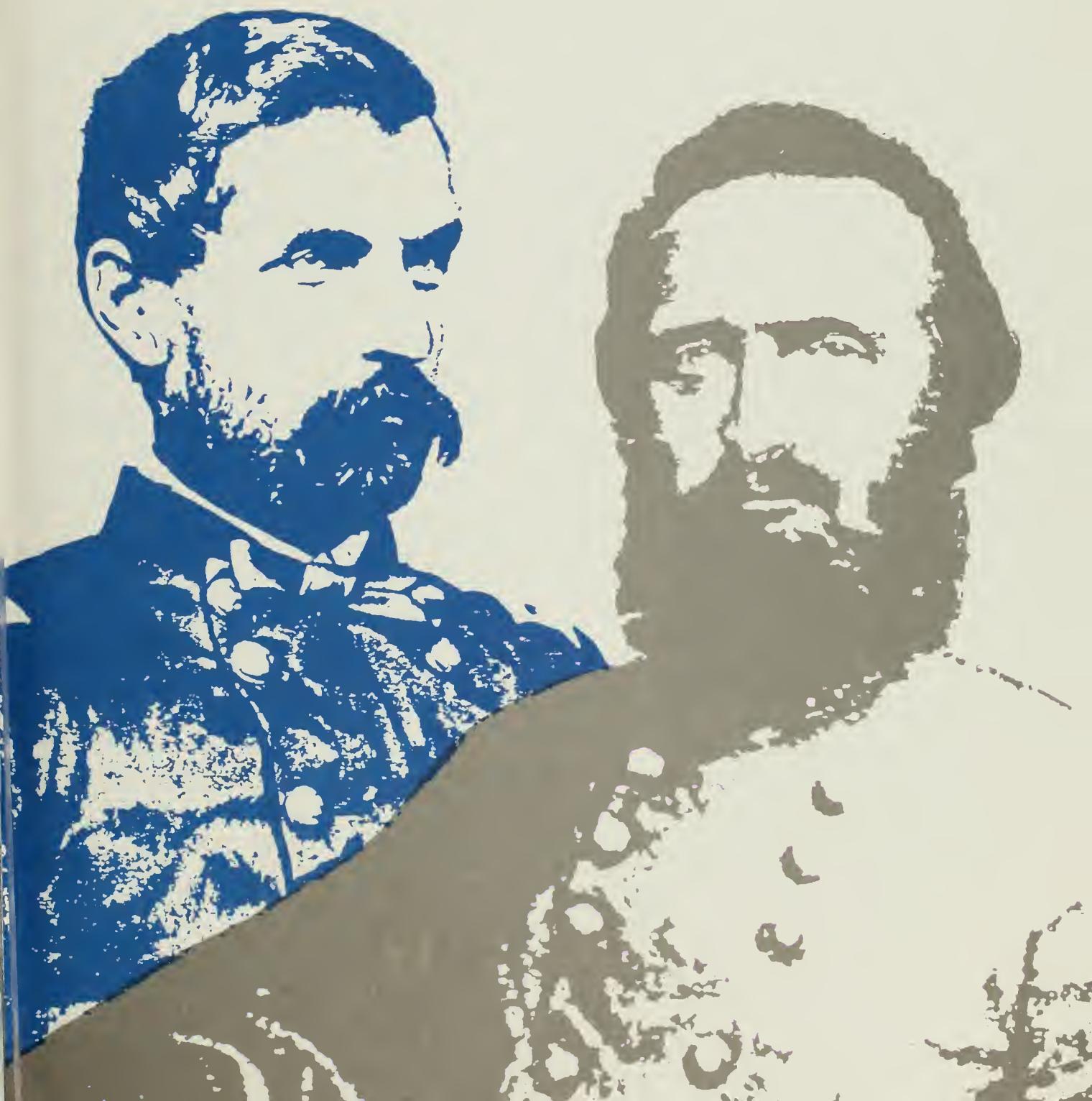
BRAWNER FARM SITE
MANASSAS

NATIONAL BATTLEFIELD PARK / VIRGINIA



United States Department of the Interior
National Park Service
February 1989

Development Concept Plan Environmental Assessment





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CONTENTS

SUMMARY	v
INTRODUCTION	1
PURPOSE OF AND NEED FOR THE PLAN	2
PLAN OBJECTIVES AND ACTIONS	4
HISTORICAL PERSPECTIVE	5
Battle of August 28th	5
The Farm	9
THE ENVIRONMENT	11
Cultural Resources	11
Natural Resources	12
Visitation and Interpretation	14
Site Development	15
Regional Influences	16
DEVELOPMENT CONCEPTS	19
Alternative A (Proposal)	20
Alternative B	26
Alternative C	31
Alternative D	35
ENVIRONMENTAL CONSEQUENCES	36
Impacts	36
Visitor Use	36
Natural Resources	36
Cultural Resources	38
CONSULTATION AND COORDINATION	41
APPENDIXES:	
A: LEGISLATION	42
B: BRAWNER FARM SOILS	46
LIST OF PREPARERS	50

ILLUSTRATIONS

Vicinity Map	1
Maj. Gen. Thomas J. "Stonewall" Jackson	5
Brig. Gen John Gibbon	7
Artist's Rendering of the Fight	7
The Battle of August 28, 1862	8
Photo of Brawner House	11
Existing Conditions	13
Region Map	17
Alternative A - Proposal	21
Alternative B	27
Alternative C	32
Soils Map (Appendix)	47

SUMMARY

Manassas National Battlefield Park commemorates the first and second battles of Manassas--two important Civil War battles fought one year apart over much of the same ground. The subject of this Draft Development Concept Plan and Environmental Assessment (DCP/EA) is the Brawner farm, where the Second Battle of Manassas erupted on August 28, 1862, marking the beginning of a bitter three-day struggle. This site was incorporated into the park's boundary with the 1980 legislated boundary adjustment. It was purchased in 1985. This 312-acre site is at the western edge of the park, bordered to the south by historic Warrenton Turnpike (route 29) and to the west by Pageland Lane.

This DCP/EA presents a proposal (alternative A) and three other alternatives for the management and visitor use of the Brawner farm. The approved 1983 General Management Plan (GMP) identified the Brawner farm site as the primary interpretive site for the Second Battle of Manassas. The GMP recommended that a new entry road and parking area, an interpretive shelter, and interpretive trail be provided in the area for visitor use.

The purpose of this DCP/EA is to develop a visitor use and resource management concept, and to identify the location, type, and scale of development necessary to accomplish these concepts, and to assess the effects of such development on the environment.

The proposal is a phased approach to providing primary visitor services. The first phase would allow better access to the site for public use through the development of an access road off Warrenton Turnpike to a new parking area just west of the abandoned residence. All visitors would then have access to the primary conflict area just east of the house site. Self-guiding interpretive trails would provide an in-depth look at the action that occurred there on August 28, 1862. The post-war house now standing would be removed and the original Brawner house foundation would be stabilized and interpreted, and the historic landscape would be restored. The second phase would entail the development of a comfort station near the parking area and a small interpretive shelter just east of a stream that would provide a media program of the three-day battle.

Alternative B would provide visitor access off Pageland Lane, which borders the western edge of the site, to a high point north of the unfinished railroad. There, a staffed interpretive building would offer information, restrooms, and a media program on the three-day battle. Limited views of the battlefield would be seen from the building. Interpretive trails of various lengths would be available. The current house would be removed and the original house "ghosted" with a framing structure that would be visible from the visitor facility and serve as an important battlefield marker.

INTRODUCTION

Manassas National Battlefield Park, principally in Prince William County, Virginia, commemorates two important Civil War battles that were fought over much of the same ground. The First Battle of Manassas, fought July 21, 1861, was the first major land battle of the Civil War. The Second Battle of Manassas, a three-day conflict fought from August 28 to 30, 1862, was an important Confederate victory that opened the way for Gen. Robert E. Lee to invade the North, culminating in the Battle of Antietam.

On May 10, 1940, the secretary of the interior designated Manassas National Battlefield Park as a national historic site to preserve the sites of the First and Second Battles of Manassas and their significance in the Civil War. Subsequent congressional legislation in 1954, 1980, and 1988 established the present park boundaries to "preserve the most important historical properties relating to the two battles of Manassas." The battlefield now encompasses about 5,113 acres, including approximately 600 acres of the recently acquired William Center tract. It is in the National Register of Historic Places and is subject to the provisions of the National Historic Preservation Act of 1966, as amended.



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MANASSAS NATIONAL BATTLEFIELD PARK
NATIONAL PARK SERVICE / UNITED STATES DEPARTMENT OF THE INTERIOR

PURPOSE OF AND NEED FOR THE PLAN

The Brawner farm, subject of this Draft Development Concept Plan and Environmental Assessment, was incorporated into the park with the 1980 legislated boundary adjustment and was purchased in 1985. It was at the farm that the Second Battle of Manassas (also known as Second Bull Run or the Battle of Groveton) erupted in a bitter fight late in the day of August 28, 1862.

A major decision in the park's 1983 General Management Plan was to promote better visitor understanding and appreciation of the second battle by opening the Brawner farm to visitors. Development of the Brawner farm would serve two primary interpretive functions. First it would provide visitors an interpretive overview of the three-day battle through an on-site audiovisual program. Second, the Brawner farm would be the first stop of the recommended four-stop interpretive driving tour where visitors would learn in-depth about the opening action of the battle by exploring the site where the clash occurred. The GMP recommended that a new road, parking lot, interpretive shelter, and interpretive trail be developed to support these visitor use and interpretive functions.

The decision to develop the Brawner farm was based primarily on the need to provide a more balanced interpretive program. The first battle receives greater interpretive emphasis than the second, primarily because the visitor center is on Henry Hill in the midst of the first battlefield. The majority of visitors go to the visitor center first, and then walk part or all of the Henry Hill self-guiding tour, which is an interpretive walk of the first battle. Only a small percentage of visitors to the visitor center in 1987 ventured into the park to explore second battle sites.

Also, in many places where the second battle is interpreted, the first is interpreted as well, because the two battlefields overlap. Interpreting two battles on one site creates confusion. In many cases visitors leave without a clear understanding of either battle, and some never realize that two battles were fought at Manassas. The Brawner farm is one of several second battle sites that does not overlap with the first battlefield. By developing the Brawner farm as a major destination point and promoting it, the second battle is given greater recognition. Visitors will, therefore, be more likely to visit the site, grasp its significance, and distinguish it from the first battle.

During the development of the GMP, the tract was in private ownership, thus precluding analysis of all the issues. This DCP provides the vehicle to do such analyses. The primary issue was the Brawner house, which had been vacated in 1978 and was in poor condition when the National Park Service obtained it. That structure was thought to have been Douglas Hall, which stood in the midst of fighting during the second battle. Little was known about the role the structure played in the battle or how it appeared historically. To answer these and other questions, two studies were initiated. An historic structure investigation was conducted in the spring and summer of 1987. The information collected

augmented the 1985 Douglas Hall Historic Structures Report. In concert with the structural investigation, an archeological investigation of the house and immediate grounds was conducted by the NPS. The findings of the two studies were surprising yet conclusive and are discussed under the "Historical Perspective" and "The Environment" sections.

Following the development of the GMP, a comprehensive 1985 Historical Report - Troop Movements August 1862 was prepared by the National Park Service. This report provided new information unavailable before and was important in identifying the location of the major conflict that occurred on August 28 on the Brawner farm. This information helped the planning team clarify and further define the zoning concepts described in the GMP, which resulted in refined historic landscape restoration, interpretive efforts, and proposals for access and development.

The Brawner farm development alternatives identify the location, type, and scale of development necessary to meet anticipated visitor needs and park objectives. They provide the necessary information to proceed with design and construction drawings. These alternatives build on recommendations in the GMP, its environmental assessment, the 1986 wayside exhibit plan, and information in recent historical, archeological, and architectural reports.

The newly purchased William Center tract, established by PL 100-647 (see appendix A), is directly south of and across U.S. 29 from the Brawner farm. On this property is the site of Robert E. Lee's battle headquarters and the place where many of Longstreet's troops gathered before their August 29 sortie and the August 30 attack that brought them final victory. Other than recommending cultural landscape restoration, consistent with GMP objectives, this plan does not address the future preservation and visitor use of this area. That effort will occur at a later date, when additional resource information and funds are available.

PLAN OBJECTIVES AND ACTIONS

RESOURCE MANAGEMENT

Manage the site's natural resources in ways that help to restore and preserve the historic resources, particularly the battlefield landscape.

Determine the historical accuracy of the landscape, including roads and structures, to provide a factual basis for an historic scene restoration plan.

Develop and implement an historic scene restoration plan that would reestablish the integrity of the historic battlefield appearance.

Refine the management subzone boundaries of the Brawner farm so that they reflect more appropriately the anticipated visitor use and development patterns.

VISITOR USE AND INTERPRETATION

Interpret on-site the story of the Second Battle of Manassas and its significance to the Civil War and American history.

Provide all visitors barrier-free access to key battle areas so they may experience the battlefield first hand.

Provide adequate information through signs, exhibits, and publications to allow visitors to competently use the park on their own.

Provide a system of interpretive trails that allows visitors a more personal way to discover and explore the battlefield.

Provide opportunities for staff-led interpretive programs during peak season visitation.

Limit indoor interpretive activities to a brief, informal audiovisual program and to distribution of printed materials. The purpose of an audiovisual program would be to better tell the story of the events leading up to the battle, the battle itself, and following events.

Enhance the effectiveness of battlefield interpretation by restoring the historic battlefield landscape within the primary area of interpretation activities.

Locate a visitor entrance road and parking area on the site in a way that minimizes their visual intrusion into the historic scene.

Permit only those daytime recreational uses that are compatible with the park's mission.

HISTORICAL PERSPECTIVE

BATTLE OF AUGUST 28, 1862

Before the fight--In the summer of 1862, the Confederate Army's morale and military power was nearing its zenith. In the Shenandoah Valley Campaign, Maj. Gen. Thomas J. "Stonewall" Jackson had successfully outfought larger enemy forces to alleviate the Union threat to the valley. Then Gen. Robert E. Lee hammered the Union Army under Maj. Gen. George B. McClellan back from the outskirts of Richmond. Now McClellan's drive had stalled.

President Abraham Lincoln, looking to change the odds, formed the Army of Virginia, and placed as its commander, Maj. Gen. John Pope. Pope was directed to operate against Confederate rail communications along the Orange and Alexandria Railroad in northern Virginia to relieve pressure on McClellan's position near Richmond.

Lee boldly met this move by splitting his army and sending Jackson north to confront Pope. After a clash with Pope's leading corps on August 9 at Cedar Mountain, Jackson fell back to be joined by the other part of Lee's army, commanded by Maj. Gen. James "Pete" Longstreet. Then Lee learned that McClellan's army was being transported by ship back to the Washington area. Now it was important to strike before the two armies could unite. Lee sent fast-marching Jackson around Pope's right to strike his supply lines and cut his communications with Washington. Jackson quickly and successfully attacked Manassas Junction and destroyed Union supplies. He then withdrew his troops to the Brawner farm area, north of Warrenton Turnpike, to await the arrival of Lee and Longstreet's reinforcements.



Maj. Gen. Thomas J. "Stonewall" Jackson

Meanwhile General Pope responded unsuccessfully by moving too late on Manassas Junction. Then he received reports that Jackson was in Centreville. In response, he ordered all troops to converge on Centreville.

The fight--Late in the day on August 28, from a high point on the Brawner farm, Jackson saw Union troops advancing east toward Centreville along the Warrenton Turnpike. Jackson had a difficult decision to make. To attack now would likely bring down the weight of Pope's entire army on his troops before Longstreet could join him with reinforcements. To let them pass might defeat their major objective, which was to engage Pope in battle before he could be reinforced by McClellan's troops.

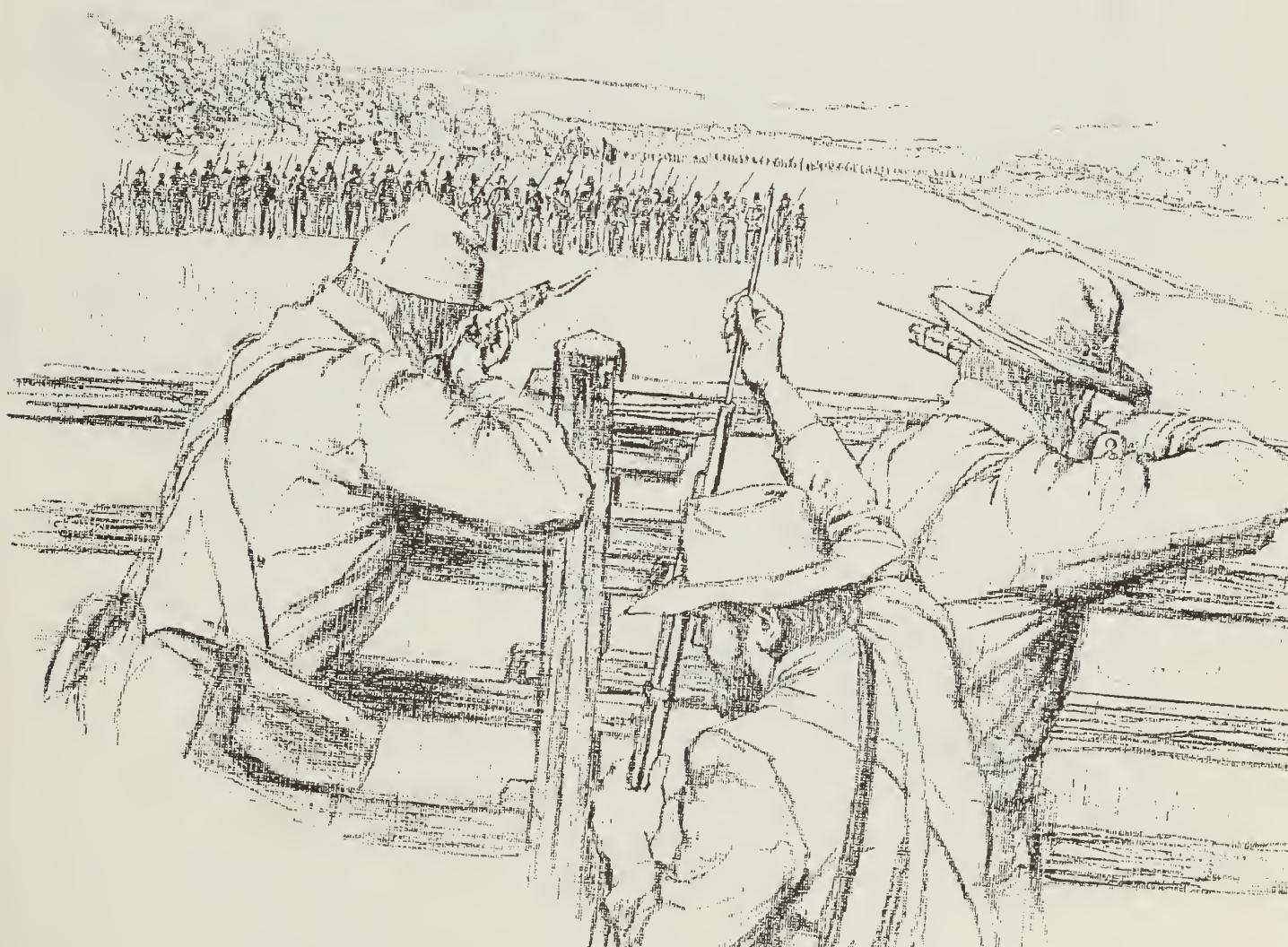
Jackson made his decision. He ordered his troops to advance from behind the unfinished railroad and attack. First, Confederate artillery bombarded troops along the road. At this point the Union troops were under the impression that they were facing only horse artillery. The troops' division commander, Brig. Gen. Rufus King, was nowhere to be found. As a result, it was left to the various brigade commanders to decide what to do. After a brief consultation with Brig. Gen. Abner Doubleday, Brig. Gen. John Gibbon led his only veteran regiment, the 2nd Wisconsin, into battle under cover of Brawner's Woods. As they passed out of the woods, later to be named Gibbon's Woods, they met skirmishers and then confronted the main Confederate line. The line, anchored near the Brawner house, stretched eastward for about a mile. Before long Gibbon's entire brigade was furiously engaged. He asked for reinforcements, but only Doubleday responded. Fighting with valor that would soon win them the name of "The Iron Brigade," Gibbon's troops held a line within 100 yards of five Confederate brigades. For 2½ hours, the fighting continued without cessation. As darkness arrived, Gibbon withdrew. The Union side had suffered 1,100 casualties out of 2,800 troops.

The fighting continued the next day farther northeast along the unfinished railroad. Jackson's men held a strong, defensible line almost 2½ miles long along the railroad grade, which repulsed a series of attacks that, by the end of the day, inflicted heavy losses on the Union army. During the day, Longstreet's troops arrived to reinforce Jackson.

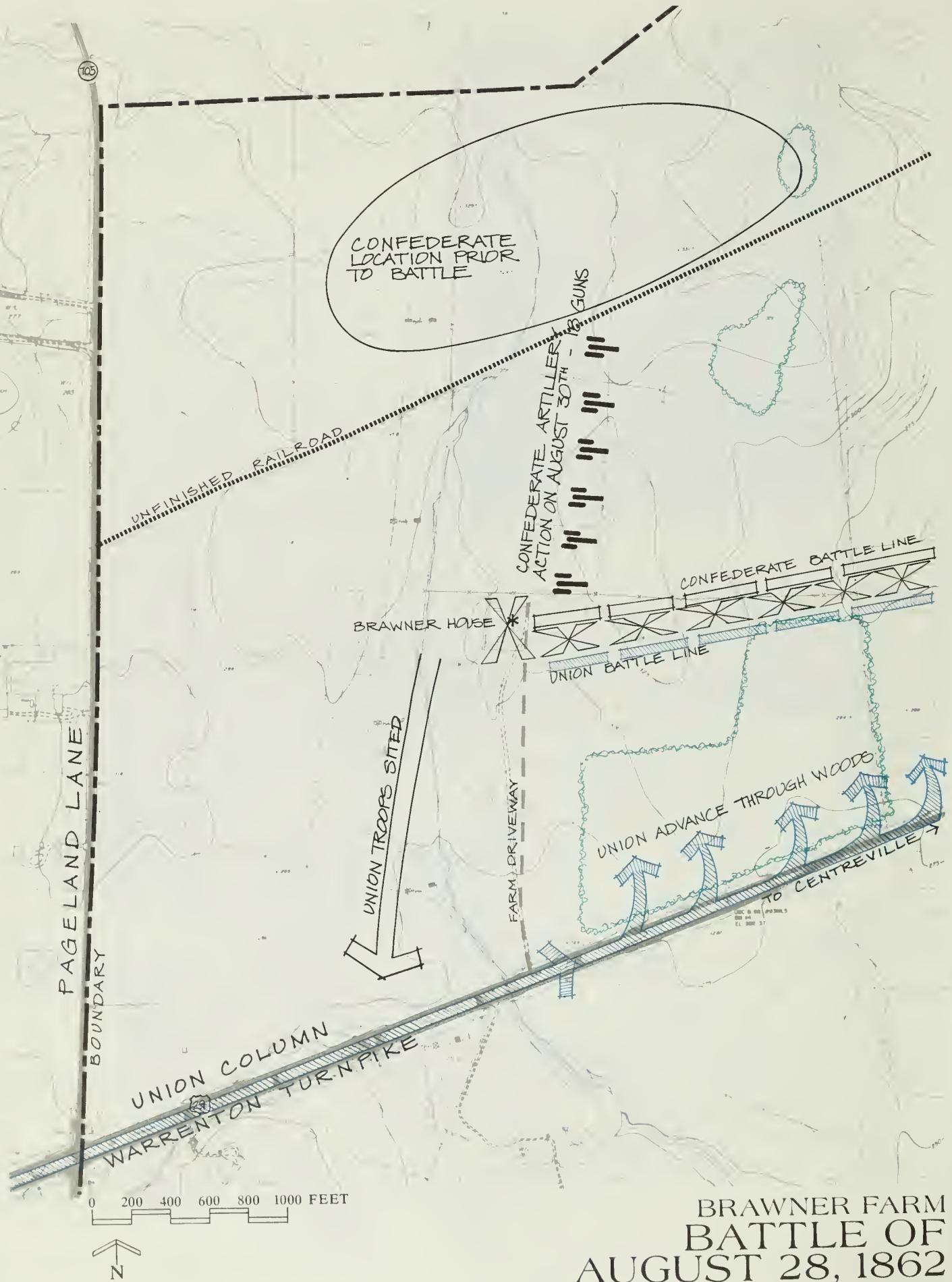
On August 30, the third and last day of fighting, General Pope was convinced that Jackson was beaten and ordered Maj. Gen. Irwin McDowell to push the pursuit of the rebels. Meanwhile, the Confederates had decided to maintain their position. Jackson was waiting along the railroad trace, and Longstreet's troops were east and south near the Brawner farm and Stuart's Hill. The Union concentrated their attack on Jackson's line at Deep Cut. At one point Jackson's men ran out of ammunition and resorted to throwing rocks at Yankees only 20 yards away. But the North could not pierce Jackson's defenses and could not remain in the open. They began to retreat. Jackson's weary men pursued. Along with artillery fire from the Brawner farm and Battery Heights, Longstreet unleashed his 28,000 men in a vicious drive that eventually crumbled the



Brig. Gen. John Gibbon



Battle of August 28, 1862 - Confederate Perspective (Artist Rendering)



BRAWNER FARM
BATTLE OF
AUGUST 28, 1862

Union defensive line set up along Chinn Ridge. By day's end the Confederates were victorious but their energy and reserves were depleted. The Union made a final stand on Henry Hill where the battle ended. They then retreated to Centreville and the defenses of Washington. The Union had lost 14,462 troops; the Confederates had lost 9,474 in the battle.

The way was now open for Lee to carry the war into enemy territory and relieve the war burden on Virginia. He proceeded toward Leesburg and the Potomac River, where he would cross into Maryland and once again meet McClellan, first at South Mountain on September 14, 1862, and then three days later at the climactic battle of Antietam.

THE FARM

The history of the Brawner farm tract was relatively unknown until recently. The following has been extracted from "A Preliminary Assessment of the Archeological Investigations at the Brawner Farm House."

The first structure on the site was recorded in 1820 when the property was owned by George Tennile, a Revolutionary War veteran. An additional structure was built sometime in 1826. In 1846, following the deaths of George Tennile and his wife, their grandson George A. Douglas inherited 319.5 acres, including "that part on which I [George Tennile] am now living with all farm utensils." George Douglas died ten years later and it is not clear whether he and his wife Augusta ever occupied "Bachelor's Hall," as it was called then. Soon after his death another structure was added to the property and the farm was rented to John Brawner in 1857. The rental agreement included \$150 and two-thirds of the harvest annually for use of the farm.

John and Jane Brawner had five grown children and one slave. They had the misfortune of renting the house which anchored the right of the Confederate line. It was because they occupied the structure during the Second Battle of Manassas that the property was christened Brawner farm.

John Brawner was 64 years old when the Second Battle of Manassas began. He stayed at his home while both Union and Confederate troops gathered and remained there until the house was shelled during the battle of August 28. Brawner returned home sometime the following day to assess damages to his possessions. Based on a claim filed by the Brawners in 1871 against the Union Army, the house and kitchen furniture were destroyed as were the vegetable garden, the livestock, crops, supplies, and farming tools. The Brawners continued farming through the 1862-63 season even though their home was not reconstructed by Augusta Douglas until circa 1868.

Augusta Douglas died in 1876 and left the farm to her son Pendleton Douglas. By 1881 the property value had decreased dramatically. There

is no record of when the Brawner family left the farm. A steady decline in property value over the next 14 years suggests the property was uninhabited. By 1891 Bachelor's Hall was known as Douglas Hall. Pendleton Douglas sold the property to William Davis in 1895. Davis was responsible for enlarging and "Victorianizing" the postbellum house in 1905. The property remained in the Davis family until purchased by the National Park Service in 1985.

THE ENVIRONMENT

CULTURAL RESOURCES

A very important landscape element that has disappeared since the battle is the original Brawner house that stood at the time of the battle. Based on battle accounts, the house functioned as the anchor of the Confederate right flank and the Union left flank during the battle of August 28. Historical records reveal that the house was damaged in the battle and underwent major remodeling around 1868. Based on the recent archeological analysis of the site, all that remains of the antebellum house are remnants of the east, north, and west stone foundation walls, chimney footings, a set stone walk, and rubble from a possible outbuilding. The placement of the three chimney footings indicate there was probably a fourth that has been disturbed by tree roots. The foundation dimensions and chimney locations reflect a structure that was two stories high with a four-room floor plan. The locations of additional outbuildings associated with the Brawner house are unknown. Additional archeological research would be necessary to locate them.

The present house is a two-story, L-shaped structure that clearly has evolved from two periods of construction. The first period of construction was circa 1868, even though the construction technique and materials used reflect earlier 19th century construction methods. This conclusion is based on historical tax records, the absence of projectiles and projectile holes in the structure (only one dropped minie ball was discovered in the interior framing), and the physical evidence of an earlier house. The southern foundation and parts of the eastern foundation of the antebellum structure were used for the foundation of the 1868 house. Architectural evidence shows that the 1868 structure was a small timber-framed house, one story high with two rooms.



Brawner House, 1988

It was hastily built and contains some timber that either was used in the previous building or from an off-site structure. When the house was expanded around 1905 and "Victorianized," the character of the original 1868 structure was modified significantly. The roof was removed and another story was added. A two-story ell was added and a porch of unknown design was constructed on the east side of the ell. This expansion erased key architectural features of the 1868 house, such as window type and location, roof pitch, roofing type and application technique, door type and location, and siding type and width. The house now standing is the 1905 structure but because of obvious neglect over many years, the house is in poor condition.

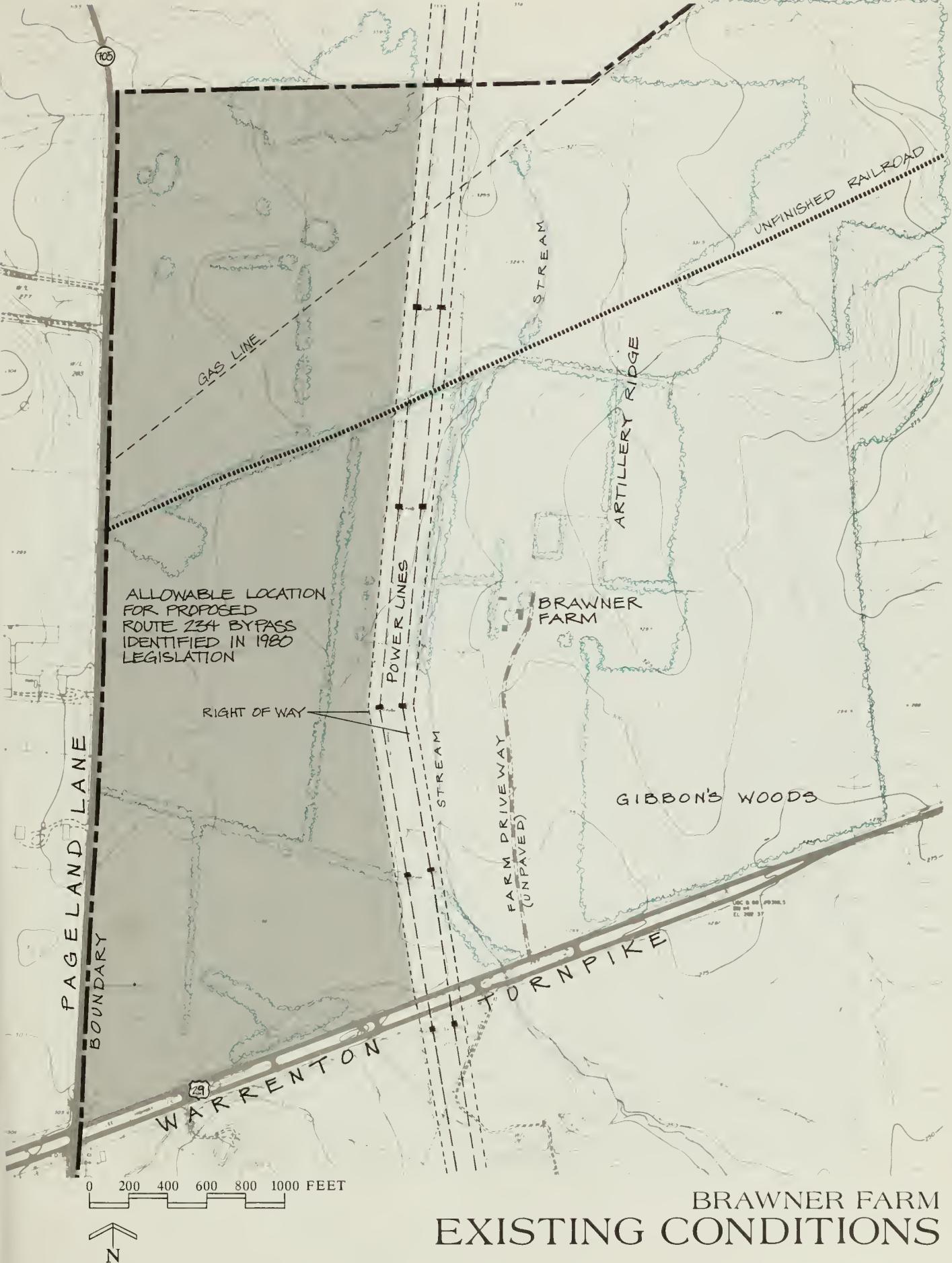
Many other, more subtle changes have occurred to modify the historic battlefield landscape. The once-cleared fence lines have been replaced by rows of trees and shrubs. The unfinished railroad, once a cleared earthwork right-of-way, is now a wide swath of trees. And Gibbon's Woods, once a well-defined woodlot, has merged with the post-war forest growth that now extends north and east of the woodlot and obscures important views of the battlefield at Brawner farm, Battery Heights, and Deep Cut. Many of the farm fields remain open, due to the farming that continued after the battle and the agricultural leasing that occurs now, but the cumulative result has been diminished views of what had been a very open farm landscape during the Civil War.

Battle records refer to an orchard that the Confederates used for cover during the intense fighting. There are remnants of an old, post-Civil War orchard northeast of the house, and there is currently a young orchard due east of the house. Considering the intensity of the fighting, the orchard would have been severely damaged if not destroyed during the battle. Additional research is necessary to determine the location of that orchard.

The farm driveway is believed to have been located to the east of the current drive, along the edge of an existing line of vegetation. Maps drawn soon after the battle show the general location of a drive connecting Warrenton Turnpike with the house. Archeological research is needed to verify this location. The current dirt driveway may have been built when the condition of an earlier one deteriorated beyond use.

NATURAL RESOURCES

The battlefield is located within the Piedmont Upland section of the Piedmont physiographic province. This area is characterized by moderately rolling hills and slow, meandering streams. The Brawner farm is at the western edge of the park and contains the park's highest areas. Elevations range from 540 feet on Stoney Ridge (referred to later as Artillery Ridge) to 270 feet along Young's Branch. The drainage of Young's Branch begins on the farm and approximately bisects the site. The stream is narrow and meanders south and east through the park and eventually drains into Bull Run.



Of the site's 312 acres, 198 acres are open field. The balance of the area is variously wooded, with Gibbon's Woods in the southeastern corner providing most of the wooded acreage. The woods are primarily mixed oak species, with Virginia pine (*Pinus virginiana*) dominating the younger successional areas. Woody plants are also found along the fence rows and unfinished railroad trace. The major species along fence rows is eastern red cedar (*Juniperus virginiana*).

Consultations with Prince William County has determined that the Brawner farm does not contain prime or unique farm land because the soil is considered poor (see appendix B). Park management efforts to maintain the open fields through hay leases and other agricultural practices have been hampered by poor soil conditions. Large areas of the site have soils with a high percentage of shrink-swell clay, very slow drainage, wetness problems where there is little slope, and low levels of plant nutrients. Attempts to plant row crops have failed. Grazing and rehabilitation of the soil for hay leasing is being attempted. These conditions also present fair to poor engineering suitability for development and will require more costly construction measures.

Consultations with the Fish and Wildlife Service indicate that no known species of plants or animals listed on the federal or state endangered or threatened species lists are found in the park. Transient individuals of some species such as bald eagles or peregrine falcons may range over the park. The listed endangered plant, the small whorled pogonia, is found in Prince William County in second growth forests and therefore might be found in the woodlands at Manassas.

The park is in an area of warm to hot summers and mild winters. The average annual precipitation of 48 inches is distributed relatively evenly throughout the year. Snow normally occurs from December to March. This pattern of mild weather allows a long and active visitor season.

VISITATION AND INTERPRETATION

The Brawner farm is currently accessible by a trail east of the site near Deep Cut. A round-trip hike is about 2 miles. The story of the Second Battle of Manassas is interpreted at the visitor center on Henry Hill by an audiovisual program. A set of detailed second battle maps is available for sale at the center. An auto cassette tape and a brochure are available for visitors interested in a self-guided driving tour of the second battlefield. This tour consists of 12 stops at points of interest. The cassette tour takes approximately $2\frac{1}{2}$ hours, and the brochure tour takes $1\frac{1}{2}$ hours. In 1987 the park rented 442 of the cassettes. This represents about 1,300 visitors out of a total 100,000 visitors to the visitor center, or about 1 percent. Vehicle counts at other points of interest at the west edge of the park, such as New York Avenue, indicate that only 8 percent of all park visitors (650,000 in 1987) currently take the time to explore that part of the battlefield.

A wayside exhibit plan was approved for the park in 1986 and includes a series of proposed exhibits and troop location markers for the Brawner farm. As stated in the plan, the effectiveness of these exhibits depends on the development of a visitor contact facility where the events leading to the Brawner farm fighting are made available in some form of quickly absorbable interpretive media; where the historic scene (at least the orchard and woodline) is restored to clarify interpretation; and where a walking tour trail is provided along the battlelines.

The wayside exhibits will be interpretive panels with maps, historic illustrations, and portraits of soldiers and officers as well as text. Troop location markers will be smaller, unobtrusive panels, employing quotations from the writings (diaries, letters, and memoirs) of on-site participants.

The markers will augment the stage-setting waysides with the immediacy of the combatant's personal reactions and observations. There are three exhibits planned for the Brawner farm. The first will re-create the Confederate perspective of the first moments of the initial engagement of Second Manassas. The second will depict the close-quarters intensity of the infantry fighting from the Union perspective. The view will include the farmhouse site, orchard, and Confederate position. The primary purpose of the third wayside is to interpret the Confederate artillery's effect on the Union's August 30 assault on the troops posted behind the unfinished railroad at Deep Cut. Interpretation of this event will be ineffective unless the historic scene between this wayside and Deep Cut is restored. A total of ten markers, five Confederate and five Union, will identify the troop positions.

SITE DEVELOPMENT

Relatively recent modern intrusions have further altered the historic landscape. Virginia Power Company has a 240-foot right-of-way that now includes two high-tension power lines. The towers are 95 feet high. The lines cross the site in a north-south direction just west of the Brawner house. These are a major visual intrusion to the site. Any request for access across or development within the utility right-of-way requires the approval of site plans by the power company. Current requirements prohibit the location of permanent structures in the right-of-way, but roads and parking areas are allowable.

The Columbia Gas Transmission Corporation has an underground pipeline near the northern boundary of the site which follows a southwest-northeast alignment. Road access across the pipeline right-of-way is allowable as long as 3 feet of soil remain between the road base and pipeline. If underground electrical lines cross the right-of-way, there must be a foot between lines. Site plans should be reviewed by Columbia Gas before construction begins.

REGIONAL INFLUENCES

The need for a new cross-country arterial serving the central portion of Prince William County has long been recognized by the commonwealth of Virginia and local government. The first roadway planned to serve this need was the so-called "third beltway," which was proposed in 1964. Since that time several alternatives have been explored. In 1973, these alternatives were replaced with a major new arterial running south of I-66 to route 234. In 1976, the bypass was extended north to route 234 at Catharpin. The draft EIS was completed in mid-1979. On April 17, 1980, the Virginia Highway and Transportation Commission endorsed the corridor alignment for the route 234 bypass as shown on the Region map. In August 1982, a revised Prince William County Comprehensive Plan was adopted, which includes the bypass. The approved route for the proposed route 234 bypass corridor begins at Independent Hill, south of the city of Manassas, and continues north 7.5 miles to Catharpin, Virginia. The bypass will be routed across I-66 and along the western boundary of the Brawner farm, parallel to and west of Pageland Lane. The official termination point of new construction is planned to be just west of the intersection of Pageland Lane and route 234 near Catharpin. An interchange with I-66 is planned. Currently there are no funds programmed by the Virginia Department of Highway and Transportation for design on construction of the route north of I-66 for the next 10 years. The county plans, for the short term, to terminate the bypass at the I-66 interchange. The National Park Service has supported the 234 bypass north of I-66 since it was originally proposed. This portion of the bypass would reduce traffic through the core of the park.

The Department of the Interior is directed by PL 100-647 (see appendix A) to conduct a transportation study of routes 29 and 234 within one year following the law's enactment. The study will develop plans for the closing of routes 29 and 234 through the park and assess alternatives for rerouting traffic. The secretary of interior is then directed to provide funds for the construction and improvement of the highways to be used for the rerouting of traffic from routes 29 and 234.

Additional development is anticipated over the long term along Pageland Lane and farther west along Warrenton Turnpike as the population of Prince William County continues to expand.





DEVELOPMENT CONCEPTS

The following development alternatives for the Brawner farm are consistent with the guidance provided in the 1983 GMP. Deviations from specific recommendations occur because additional information about the site's resources and history has become available since preparation of the GMP. Also, closer scrutiny of the resource, site conditions, and visitor characteristics has led to additional ideas for treatment of the site. These alternatives are flexible solutions to the issues affecting the site. Elements of the alternatives may be rearranged to form new alternatives before completion of the final DCP.

To provide a more balanced interpretive program at the park for both battles, the Brawner farm would be developed under alternatives A, B, and C as a major destination point. As such, the site would serve as the primary location for interpretation of the Second Battle of Manassas. The second battle would continue to be interpreted at the visitor center because that is the primary point of visitor contact for the park. Many visitors who go there do not have the time nor the inclination to explore further, and it is the park's responsibility to provide interpretation of both battles. However, the program at the visitor center would be structured to encourage and motivate the visitor to spend the extra time necessary to visit the Brawner farm. For example, a supplemental brochure for the site should be made available and provide an interpretive overview of the site's significance and the three-day battle. This is particularly important during the first phase of site development when no audiovisual program would be available. With promotion, visitation to the Brawner farm site is expected to be about 15 to 25 percent of total park visitation.

Under alternatives A, B, and C, the Brawner farm would offer both an overview of the three-day battle as well as an in-depth look at the specific action that unfolded there on August 28. The battle overview would be important because many visitors would not remember, or would confuse the two battle stories from the Henry Hill program. Other visitors would not see the program. By separating the second battle story from the first, visitors would be more likely to retain a distinct impression of the event. By presenting the story on-site, the scene would be set and visitors could then make a better transition into the battlefield setting of August 28.

For those interested in visiting more of the second battle sites, the Brawner farm would be the first stop of the GMP's recommended four-stop tour. As a tour stop, the first day's action would be interpreted in-depth. Visitors would then need to continue on the tour to get the same in-depth interpretive treatment of the action at Deep Cut and Chinn Ridge.

ALTERNATIVE A--PROPOSAL

This alternative is considered the minimum requirements alternative, consistent with NPS planning guidelines.

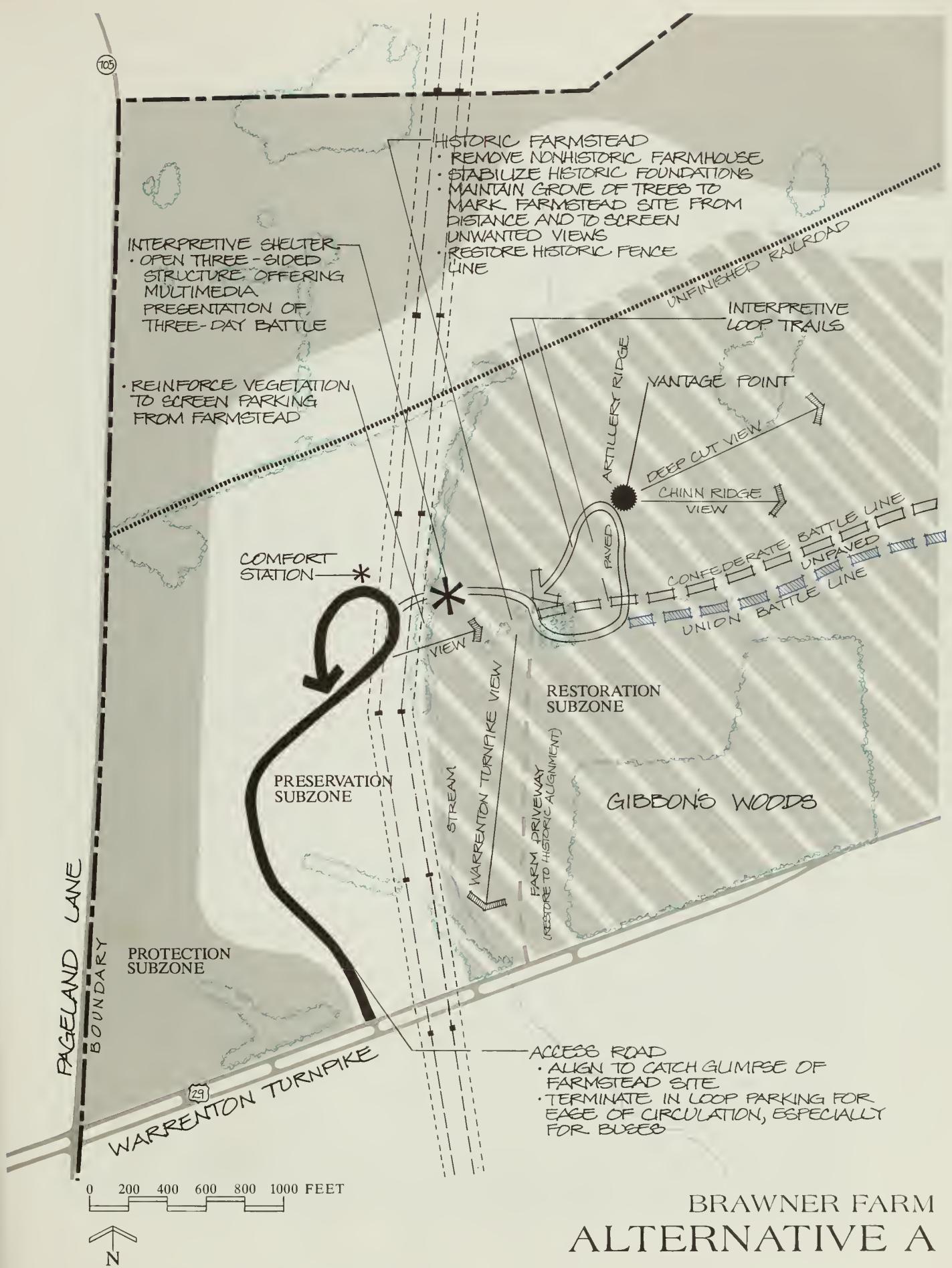
Visitor Services, Interpretation, and Related Development

An entry road into the Brawner farm would be constructed directly off Warrenton Turnpike, approximately two-tenths of a mile west of the farm's driveway. It would be west of the power lines and mostly hidden from the Brawner farmyard area by a ridge. The road would be approximately six-tenths of a mile long and terminate in a one-way loop parking area within the power line right-of-way and just west of the Brawner house. The drive would be designed to give approaching visitors a glimpse of their destination as they drive across the power line ridge before parking at a low point behind the vegetative screen that grows along a small stream.

Parking for approximately 20 cars and two buses would be provided along the loop. A parking loop would allow for smooth circulation, particularly for bus traffic. The stream, which is lined with cedar trees, would provide a strong visual shield between the main visitor area and the parking area. Additional trees would be planted where necessary to strengthen the vegetative buffer. This buffer would not shield about 400 feet of the access road that would cross over the ridge where the power lines are before dropping down to the parking area.

From the parking area, visitors would be directed across the narrow, wooded stream by a small bridge. Upon leaving the trees, visitors would enter onto the grounds of the old Brawner farm. Here visitors would encounter two views. In the background, as they look upslope toward the knoll, would be the old site of the Brawner house, which would be identifiable from a distance by a grove of trees. In the foreground would be a small, three-sided interpretive shelter with its open side oriented toward the old house site and the fields to the south. The shelter's location would serve as a transition point between the developed area west of the drainage and the core battlefield interpretive area east of the house. Also, the shelter's location on a low point near the stream would minimize its visual impact on the landscape.

Inside the shelter, visitors would be greeted with a brief audiovisual program that would help set the scene by recounting the events that led up to the battle. The program would then review the three days of fighting and the impact of the Confederate victory on the Civil War. The shelter would also provide a location for distributing park information and serve as a staging area for guided interpretive walks. In general, the interpretive program for the site would be designed so that no park staff would be required on-site. This would not exclude the possibilities for specially guided walks when there was the demand and personnel were available. For security, the open side of the shelter would be designed with a roll-down gate that could be drawn and locked at the end of the day.



BRAWNER FARM ALTERNATIVE A

A paved, handicap-accessible trail would guide visitors from the parking lot, to the interpretive shelter, and then along an historic fence line to the area where the original Brawner house stood. (All paved trails constructed on the site should be made of a light-colored material to reduce their visual intrusion within the landscape.)

The post-war house now standing would be documented and removed, and the foundation remains of the Civil War period structure would be exposed and stabilized to mark the location of the original farmhouse. An interpretive wayside would be located at the house site to tell of the role the house and yard played in the battle and the resulting impact of the battle on the house and Brawner family. Additional archeological research is needed to locate the outbuildings associated with the house and to provide more detailed information concerning the intense fighting that occurred in and around the Brawner house and associated structures. If foundations are found, they should also be exposed and stabilized. Identifying the outbuildings would help create a more accurate historic scene.

A $\frac{1}{2}$ -mile interpretive loop trail would be developed near the Brawner house to interpret the intense action of August 28. Interpretive wayside exhibits would be located along the trail and would focus on highlights of the battle from Confederate and Federal viewpoints. The waysides would include maps, text, and illustrations. The trail, which would be paved and handicap-accessible, would also take visitors to Artillery Ridge where the action at Deep Cut on August 29 and 30 would be interpreted, with emphasis on the artillery action from Brawner farm. The final action at Chinn Ridge on August 30 could also be interpreted from Artillery Ridge. Any success in interpreting the subsequent fighting at Deep Cut and Chinn Ridge depends on historic landscape restoration, as identified in the GMP.

Another interpretive loop trail, approximately 1.2 miles long, would be developed for those visitors who have more time and interest in the battle. This would be a simple, mowed trail that would follow the Confederate and Federal lines of battle east from the Brawner house. Small markers would show the positions of the different units and relate quotes from personal diaries and reports. Development of this trail also depends on significant tree removal north of Gibbon's Woods.

Phase One. The first phase of development should focus on opening the site to the battlefield visitor and providing interpretation of the event for which the site is famous--the battle of August 28. This would involve constructing the entry drive, parking area, and interpretive trail or trails with waysides. An interpretive brochure about the Brawner farm and the battle of August 28 should be prepared during this phase.

Plantings of individual trees at strategic interpretive points may be needed to help block modern intrusions. This would be done only when the impact of the modern intrusion on the view is greater than the intrusion of the introduced trees. Also, as the rural landscape outside the farm's borders is replaced by higher density development, vegetative

plantings along the boundary are recommended to buffer visual intrusions.

Phase Two. The second phase of development could occur once the first phase is in place and funding is available. This phase would focus on providing an interpretive shelter with the three-day battle audiovisual program. The comfort station would be built as a separate structure west of the stream by the parking area. Drinking fountains would be located near the restrooms. It is not recommended that the shelter and comfort station be combined, because that would significantly increase the size of the interpretive shelter within the landscape and increase the number of visitors who would linger there. It is more appropriate to locate this amenity west of the drainage because the landscape has been unalterably damaged by the power line development, and the major interpretive focus is east of the drainage.

Utilities would not need to be introduced until the second phase of development. This would include a well and either a septic field or sand mound for the comfort station. Due to soil limitations and the proximity of the stream, sewage would be pumped away from the stream's drainage area to a site with the best soils available. Electricity would be needed for powering the well and septic pumps and the audiovisual program in the interpretive shelter. All telephone and electrical lines would be placed underground and preferably be installed alongside the entrance road.

Historic Scene Restoration

A restored Civil War period landscape is critical to a visitor's understanding of events that unfolded in the Second Battle of Manassas. Under the proposal, the park would implement a phased program of historic scene restoration on the Brawner farm within the core interpretive area. The preferred phasing sequence is listed below, but the actual phasing sequence might vary depending on available funding, personnel, etc.

Phase One. Remove the post-bellum Brawner house. Expose, stabilize, and interpret the foundation of the Civil War house. Research the locations of the Brawner house outbuildings and identify their locations with interpretive media. Plant a grove of trees around the house site to mark the site from a distance. Continue leasing those farm fields for agricultural crops where such use would not conflict with visitor activities.

Remove all vegetation from along fence lines east of the stream and south of the unfinished railroad. Replace historic fence lines with 19th century fencing.

Reestablish the historic orchard once its location and content have been identified. Relocate the farm driveway to its original alignment once this alignment has been verified through archeological research.

Phase Two. Reestablish Gibbon's Woods as a distinct woodlot similar in configuration to that shown on the historic vegetation map. Ensure that the area where the two armies established their battle lines north of Gibbon's Woods is cleared to allow for the interpretive trail.

Remove all post-war vegetation as recommended in the GMP to open up views to Deep Cut and Chinn Ridge. No effective interpretation of the action on August 29 or 30 would be possible from Artillery Ridge until this was accomplished.

The newly acquired property south of the Brawner farm forms an important interpretive backdrop to the battlefield. It is important that the original vegetation pattern on this site, at least that visible from the Brawner farm, be researched and restored. This would be consistent with the major GMP objective of historic battlefield scene restoration.

Park Operations

To limit intrusions into the historic scene, no park vehicles would be allowed to use the old farm driveway to service the site. Only agricultural lessees could continue to use this for access. Park vehicles would use the visitor entrance road and during low visitation times could use visitor paths to access areas that require maintenance. The paths would be designed to accommodate occasional use by park vehicles. Equipment associated with agricultural leasing would have to be stored off-site or well outside the main visitor use areas.

In general, the site would not require staff presence except for opening and closing the site, occasional maintenance, and providing security patrol. The orchard would be maintained and harvested through contracted services.

Construction Phasing and Cost Estimates (Alternative A)

The total development costs that follow for alternatives A, B, and C include construction costs, project planning, project supervision, and contingencies.

<u>Phase One</u>	<u>Gross</u>
Development	
Entrance road (0.6 mile)	\$ 463,000
Parking area (20 cars, 2 buses)	57,000
Small bridge (50 feet)	110,000
Paved trails (0.48 mile)	111,000
Unpaved trails (1.2 miles)	139,000
Landscaping and site development	131,000
Interpretive media	11,000
waysides	
brochure	
Historic Restoration	
House removal (2,700 cu ft)	22,000
Foundation stabilization	22,000
Restore fence lines (3,000 ft--rail)	88,000
Restore orchard (plant 50 trees)	15,000
Realign driveway (1,400 ft--dirt)	51,000
Phase One Subtotal	\$1,220,000
Phase Two	
Development	
Interpretive shelter (600 sq ft)	\$ 44,000
Interpretive media	73,000
audiovisual program	
exhibits	
Comfort station (400 sq ft)	117,000
Utilities	
well system, septic system,	
electrical/telephone (1,000 ft)	242,000
Historic Restoration	
Restore Gibbon's Woods (10 acres)	73,000
Restore view to Deep Cut and	
Chinn Ridge (65 acres)	475,000
Phase Two Subtotal	\$1,024,000
Total Development Costs	\$2,244,000

Recommended Research/Costs

Complete historical and archeological research of the Brawner farmyard, including:

- 1) the location and content of the historic orchard
- 2) the interior of the south foundation wall of the antebellum house following removal of the post-war house
- 3) the location and configuration of historic outbuildings
- 4) the location of battle lines within the farm yard
- 5) archeological survey and monitoring of development sites before and during construction activities

\$ 117,000

Identify the location of all key battle lines, unit positions, and historic versus nonhistoric fence lines throughout the site

50,000

Total Research Costs \$ 167,000

Staffing (Cyclic):

Phase One:

1.0 FTE maintenance worker \$ 31,000

Phase Two:

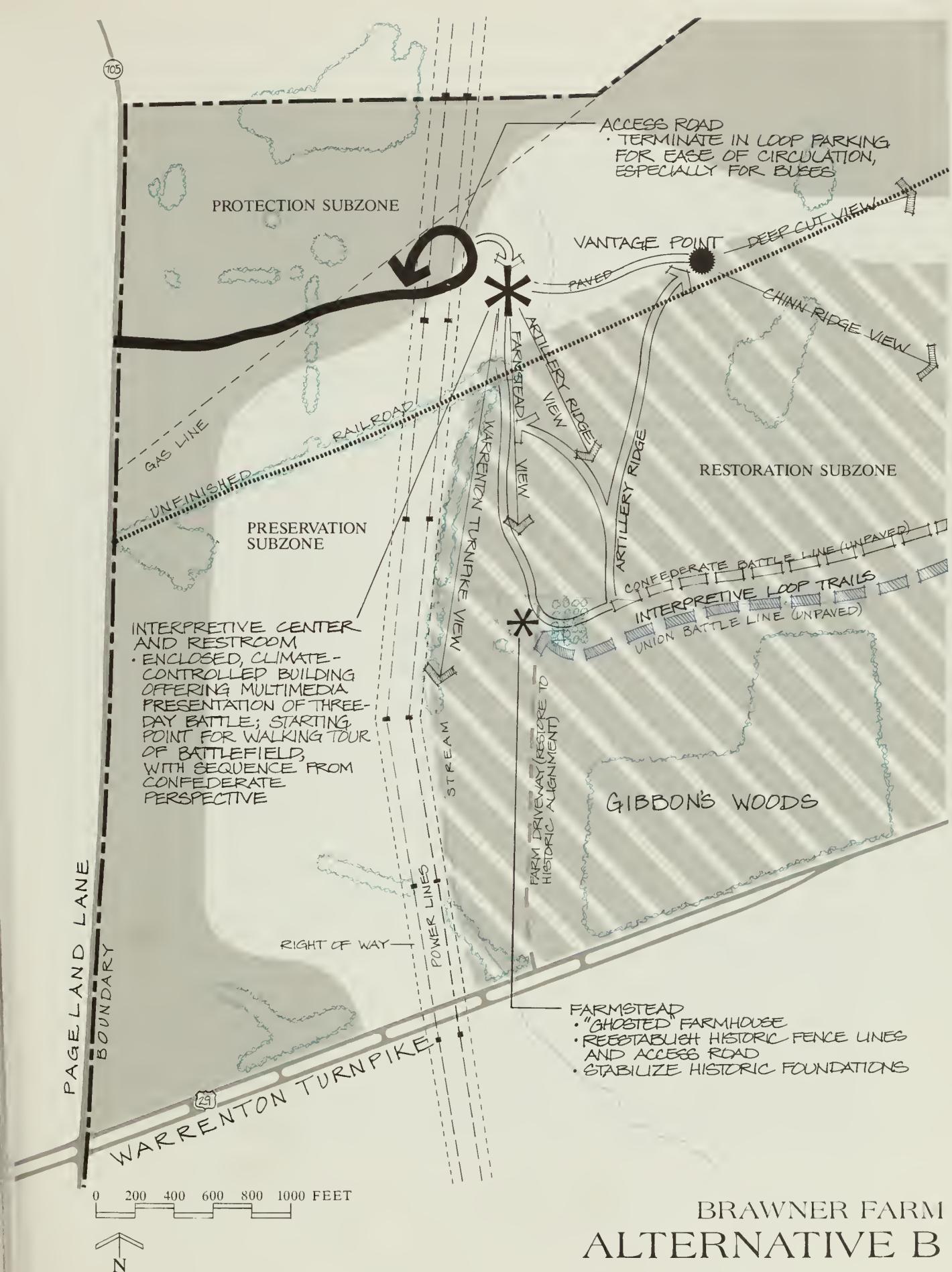
0.5 FTE park ranger (interpretation) 9,500
0.5 FTE maintenance worker 15,500

Total Staffing Costs \$ 56,000

ALTERNATIVE B

Development and Interpretation

Visitors would enter Brawner Farm from the rural, two-lane Pageland Lane. This approach would provide visitors with a transition from Warrenton Turnpike, which would become busy and congested in future years, to the quiet pastoral fields of the farm. It should be noted that the rural character of Pageland Lane has the potential to change significantly if the bordering acreage is rezoned or if the 234 Bypass is constructed. Access to the farm would be via a new ½-mile road off Pageland Lane. The road would take slightly longer to reach (one to two minutes) from the visitor center than would access from the turnpike, but the road itself would be a direct route that would be set back visually from the core battlefield area. This would bring visitors to a one-way loop parking area on a back field of the farm, north of the unfinished railroad.



Adjacent to the parking area, on a high point overlooking the railroad and part of the battlefield, would be a new interpretive building. This would be a small, climate-controlled structure that would function as a formal introduction point to the second battle. Visitors would be greeted by park staff who would be there to answer questions, provide resource protection, and give interpretive walks. A brief, audiovisual program would tell of the three-day battle and the events surrounding it. Large windows with interpretive waysides would orient visitors southward, from the Confederate perspective, toward the railroad and primary area of conflict east of the Brawner house.

The distance between the new interpretive center and the primary conflict area would be far enough to discourage many visitors from walking there and back, particularly on very hot days. With this situation, the prominence of the original Brawner house in the battlefield scene becomes an important interpretive tool. This structure anchored the Confederate right flank during the intense fighting. If a structure marked the site where that house once stood, visitors would have an important focal point from a distance by which they could better determine where the major fight happened. This alternative recommends that the existing, post-Civil War house be removed. The foundations of the original house would be stabilized and interpreted, and a frame representation or "ghosting" of the original house would be constructed. The structure would be "ghosted" by using durable construction materials to build a simple frame representing the dimensions of the original house. These dimensions have been determined through archeological research. This method has been used at Independence National Historical Park where the only structural information available, as at Brawner, was based on archeological research.

Interpretive trails of various lengths would be provided to accommodate visitors with varying levels of time and interest. A short (0.2-mile) barrier-free interpretive trail would connect the interpretive center with Artillery Ridge. From there visitors would have additional views of the Brawner battlefield. Also, once the historical landscape restoration identified in the GMP is completed, visitors would have a view of Deep Cut and the Chinn Ridge area. A wayside exhibit would be located there to describe the dramatic fighting of August 29 and 30. A 0.8-mile barrier-free interpretive loop trail would guide visitors along the path Confederate soldiers took when they were called forth from behind the railroad to attack. Visitors would cross the railroad and continue south, using the "ghosted" Brawner house as a focal point. An interpretive wayside at the structure would tell about the battle's effects on the Brawner family and the house they rented. To the east of the house, the trail would continue to wayside exhibits highlighting the intense action as viewed from both Confederate and Union perspectives. Visitors could then continue the loop back to the interpretive center or take a 1.2-mile loop walk along the battlelines, where markers would show the locations of units and on which would be inscribed quotations from diaries and reports.

Historic Scene Restoration

The interpretive center would not be on high enough ground to give visitors full, sweeping views of the historic landscape. Only limited views would be possible. The most desired views from the center would be: 1) a view toward the Warrenton Turnpike so visitors could orient to the area from which the Union Army was approaching; 2) a view of the "ghosted" Brawner house, the restored orchard, and Gibbon's Woods, so that visitors can locate the primary conflict area; 3) a view of the unfinished railroad trace behind which Jackson's troops were waiting just before the attack; and 4) an orientation to Artillery Ridge.

The unfinished railroad, directly south and in front of the interpretive center by 400 feet, was historically at grade or below grade in this area. Some of it has disappeared, but most of it is now defined by a thick line of trees. This vegetation did not exist at the time of battle but this alternative does not recommend removing it. Instead, it is recommended that sections of vegetation be removed to provide vistas of the landscape elements detailed above. By doing so, visitors are given glimpses into the battlefield, while the linearity of the railroad remains strongly defined from a distance by the trees. The vegetation remaining along the railroad would help soften the presence of the interpretive center in the landscape when viewed from the house site and primary battlefield.

The landscape south and east of the Brawner house would be restored as was recommended in alternative A, because that area is most historic and would be accessible to visitors by interpretive trails. Again, this includes clearing vegetation from historic fence lines, removing nonhistoric fences, restoring the orchard, realigning the driveway, removing vegetation north of Gibbon's Woods to uncover the primary battlefield, and exposing and stabilizing the historic house foundations. Also, researching and restoring the historic vegetative pattern on the land south of the Brawner farm would further enhance the historic setting.

More visitors are likely to hike the shorter trail to Artillery Ridge, particularly during the hot and humid summer months. This likelihood makes interpretation and historic landscape restoration efforts for the site more critical than in alternatives A and C. Under this alternative, major tree removal between the Brawner Farm and Deep Cut and Chinn Ridge would be a higher priority.

As discussed under alternative A, utilities would include an on-site well and either a septic field or sand mound that would be located on acceptable soils and away from the stream's drainage. All telephone and electrical lines would be brought underground from Pageland Lane and preferably be installed alongside the entrance road. The interpretive center would be climate-controlled and contain a comfort station.

Operations

Maintenance vehicle access to the visitor facility and nearby trails and waysides would be by way of the visitor entrance road and reinforced pathways. Access to facilities near the Brawner house site would be along the existing driveway, but only during low visitation periods. Agricultural leasing would continue wherever feasible to help maintain the open landscape. Farm equipment would be stored off-site or out of sight of visitor views from the entrance road and interpretive zone. The maintenance of the orchard would be contracted through the private sector.

Construction and Cost Estimates (Alternative B)

	<u>Gross</u>
Development	
Entrance road (0.5 mile)	\$ 385,000
Parking area (20 cars, 2 buses)	57,000
Interpretive facility with comfort station (1,400 sq ft)	321,000
Utilities	
well system, septic system, electricity/telephone (? ft)	242,000
Farmhouse--ghosted structure	58,000
Paved trails (0.28 mile)	66,000
Unpaved trails (2 miles)	231,000
Landscaping and site development	150,000
Interpretive media audiovisual film	106,000
waysides	
brochure	
Historic Restoration	
Remove house (2,700 cu ft)	22,000
Stabilize foundations	22,000
Restore orchard (plant 50 trees)	15,000
Realign driveway (1,400 ft)	51,000
Restore fence lines (3,000 ft--rail)	88,000
Restore Gibbon's Woods (10 acres)	73,000
Restore View to Deep Cut and Chinn Ridge (65 acres)	475,000
Total Development and Historic Restoration Costs	<u>\$2,362,000</u>
Recommended Research/Costs	
Same as shown in alternative A	\$ 167,000
Staffing (Cyclic):	
2 FTE park rangers (interpretation)	38,000
1.5 FTE maintenance workers	<u>47,000</u>
Total Staffing Costs	\$ 85,000

ALTERNATIVE C

Development and Interpretation

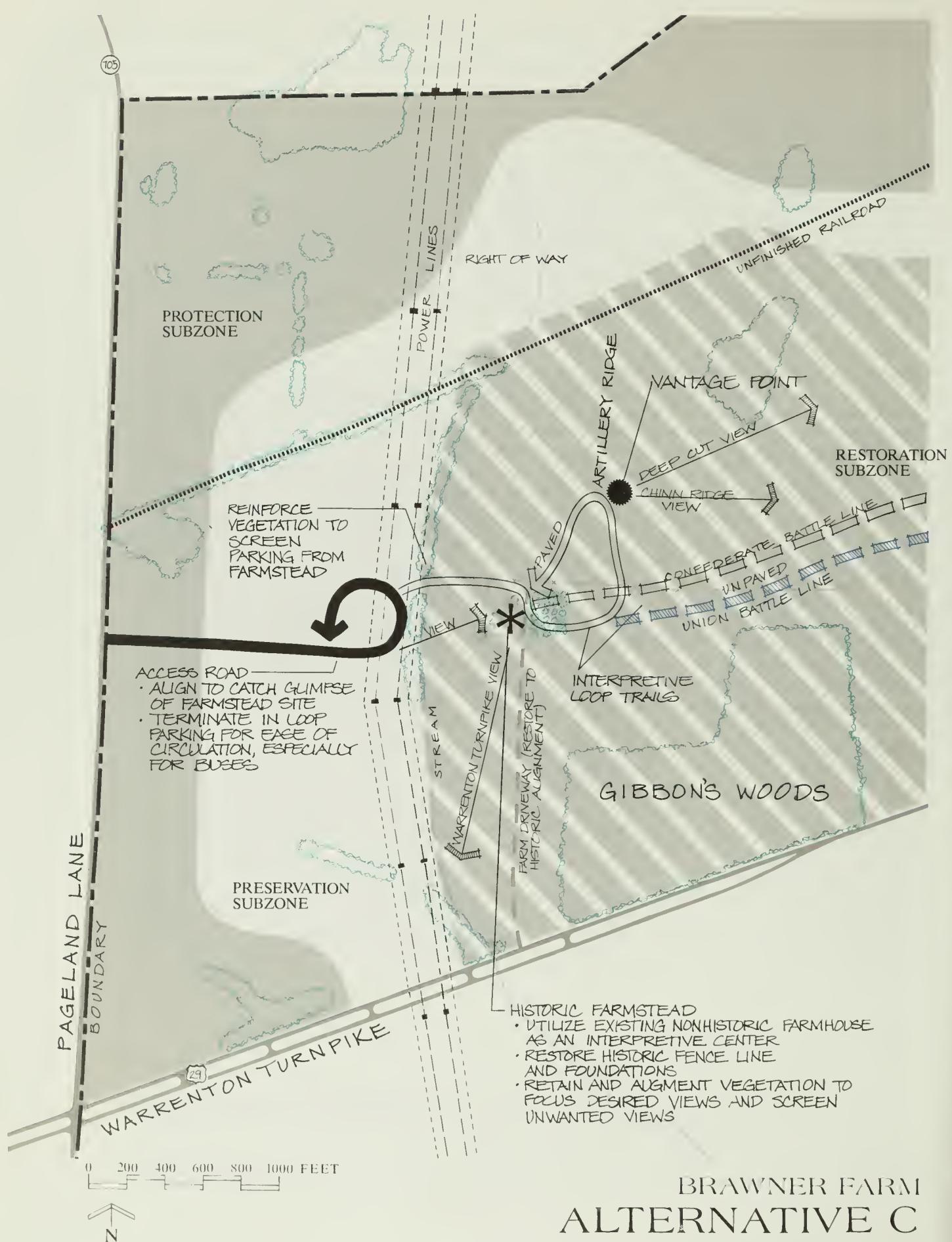
Access to the farm would be off Pageland Lane via a $\frac{1}{2}$ -mile entry road that would follow an old farm road trace. The road would be hidden from the primary visitor area until it reaches the power line right-of-way. Then the road will be visible for about 300 feet before it goes downslope toward the stream to form a one-way parking loop. The parking area will be shielded from the main interpretive area by the stream vegetation.

From the parking area, visitors would follow a handicap-accessible pathway across the stream. Once through the thin vegetative shield, visitors would enter into the immediate grounds of the Brawner farm. Directly in view, on the knoll in front of them, would be the existing Brawner house. Visitors would follow the path along an historic fence line to the house. The old house would have been rehabilitated as part of this proposal and adapted for use as an interpretive center. The first floor of the house would function as the formal introduction point for the second battle. Visitors would have access to general park information, a short audiovisual program on the three-day battle, and some exhibits. The house would be adapted to provide restrooms and a small office for park staff. At least one staff person would be in attendance in order to greet visitors, answer questions, provide resource protection, and to give guided interpretive walks. The upstairs would be closed to visitors and used for storage, if necessary. Outside, the original house foundations would be exposed, stabilized, and interpreted to help visitors understand the evolution of the structures on the site and that the existing house was built after, and as a direct result of the battle.

From the Brawner house, visitors would have the choice of two interpretive trails. The shorter $\frac{1}{2}$ -mile loop trail would be handicap-accessible and would interpret with waysides, the action of August 28 from Confederate and Union viewpoints. This trail would also take visitors to a high point on Artillery Ridge. From this point the visitor's attention would be directed toward Deep Cut and Chinn Ridge, and a wayside would interpret the action on the second and third days of the fighting. The longer 1.2-mile loop trail would follow both Confederate and Union battle lines east from the house. This would be a simple mowed trail. Along it would be small markers delineating the troop locations, and they would be inscribed with quotes from soldier diaries and war records.

Historic Scene Restoration

The Brawner house of today is post-battle vintage and therefore not part of the 1862 historic scene. But rather than removing it, this alternative recommends adaptive use of the existing structure. The house would be retained in its present 1905 architectural form. There is not enough structural detail information available to be able to return the structure to its circa 1868 form. Because of the poor condition of the structure, a



BRAWNER FARM ALTERNATIVE C

significant amount of rehabilitation would be necessary, requiring almost total replacement of the structure's fabric. The house would serve as a site marker for the original house because it is located on the same site. As a site marker, the house would help visitors to better visualize the location and orientation of the battle lines because the house roughly formed the anchor for the Confederate right and Union left flanks. A major drawback is the likelihood many visitors would believe that the existing house was historic to the battle. There would have to be a special effort made in the interpretive program to clarify the history of the house. This should tie in with the story about the battle's impact on the life of the Brawner family.

Even with the retention of the post-war house, efforts would be focused on restoring the surrounding landscape to the Civil War period. This would include removing vegetation and the current fence from the historic fence lines and installing period fencing. The historic site of the orchard would be located and planted. The driveway would be relocated to its original alignment. The post-war forest growth north and northeast of Gibbon's Woods would have to be removed to adequately interpret the battle action of August 28 as well as the action farther northeast at Deep Cut. Also, the historic landscape south of Brawner farm would be researched and restored.

As in alternatives A and B, the utilities would include a well, and either a septic field or sand mound. The house would be adapted to include heating, air conditioning, and a restroom. Because of soil limitations around the house, sewage would be pumped away from the site to soils that are more suitable and that are not in the drainage area of the stream. All telephone and electrical lines would be placed underground and preferably installed alongside the entrance road.

Operations

As in alternative A, maintenance vehicle access would be via the entrance road and reinforced pathways. Only agricultural lessees would continue to have access to the front fields by way of the existing driveway. All farm equipment would be stored off-site or outside all views from the entrance road and interpretive zone. The orchard would be maintained and harvested through contracted services.

The upstairs of the Brawner house could be used for administrative and interpretive materials storage. Upstairs flooring may need reinforcement.

Construction and Cost Estimate (Alternative C)

	<u>Gross</u>
Development	
Entrance road (0.4 mile)	\$ 310,000
Parking area (20 cars, 2 buses)	57,000
Small bridge	110,000
House stabilization and adaptation--1st floor, visitors and offices (900 sq ft); 2nd floor, storage only (900 sq ft)	504,000
Utilities	
well system, septic system, electricity/telephone (1,600 ft)	235,000
Paved trails (0.48 mile)	111,000
Unpaved trails	139,000
Landscaping and site development	184,000
Interpretive media	99,000
audiovisual program	
waysides/exhibits	
brochure	
Historic Restoration	
Stabilize foundations	\$ 22,000
Restore fencelines (3,000 ft--rail)	88,000
Realign driveway (1,400 ft)	51,000
Restore orchard (plant 50 trees)	15,000
Restore Gibbon's Woods (10 acres)	73,000
Restore view to Deep Cut and Chinn Ridge (65 acres)	<u>475,000</u>
Total Development and Historic Restoration Costs	\$2,473,000
<u>Recommended Research/Costs</u>	
Same as in alternative A	\$ 167,000
<u>Staffing/Costs</u>	
2 FTE park rangers (interpretation)	38,000
1.5 FTE maintenance workers	<u>47,000</u>
Total Staffing Costs	\$ 85,000

ALTERNATIVE D

This alternative represents a continuation of current management philosophies. Under this alternative, the Brawner farm would remain undeveloped and relatively inaccessible to the average visitor. The major focus of activities would continue to be protection of the natural and cultural resources. The three waysides would be installed and made accessible by various hiking trails. The closest trail would be a new one from the parking lot at Battery Heights. The round-trip walk would be about 1 mile. Agricultural leasing would continue in order to maintain the historically open character of the site. The post-war house would be documented and removed. The foundations of the original house would remain buried. Landscape restoration north and east of Gibbon's Woods would occur as recommended in the GMP. Special guided interpretive walks organized through the visitor center could be provided if visitor interest and staffing levels allowed for it. No additional staffing would be anticipated for this alternative.

ENVIRONMENTAL CONSEQUENCES

IMPACTS

Visitor Use

Installing visitor facilities such as an interpretive shelter, parking area, access road, and interpretive trails would provide visitor access and circulation within the Brawner farm site for the first time. Also visitor orientation to the site's resources and interpretation of the Second Battle of Manassas would be made available at the site through brochures, waysides, and video tape. These effects would be major, long-term benefits to the park visitors.

Development of the Brawner farm would generate additional visitor traffic on Warrenton Turnpike, and under alternatives B and C on Pageland Lane as well. Anticipated visitation levels would not be expected to impact traffic loading on Warrenton Turnpike significantly.

Natural Resources

Under the three action alternatives (A, B, and C), there would be only minor differences in the areas affected by the installation of facilities, roads, and trails because of differing dimensions of facilities, which are shown on the Cost Estimates tables for each alternative. This development would mostly occur on previously disturbed open field areas.

Other site preparation and landscape restoration of Gibbon's Woods and fence lines would remove approximately 11 acres of woody vegetation and wildlife habitat under these three alternatives. Under alternative B, the landscape restoration of the 10 acres of Gibbon's Woods would have a priority. The loss of forest habitat would be a minor long-term effect and would be mitigated only in small part by proposed plantings. Potential impacts on the endangered small whorled pogonia should be minimized by a survey conducted by a qualified botanist prior to woodland clearing. If this species is discovered, its population would either be avoided or consultations with the U.S. Fish and Wildlife Service initiated. No other rare, unique, threatened, or endangered plant or animal species would be affected. The impacts of tree removal, as needed to restore views between the Brawner farm and Deep Cut, have been addressed in the 1982 Draft General Management Plan/Environmental Assessment. All actions approved under the GMP/EA are covered for National Environmental Policy Act compliance, so only differing actions need additional NEPA approval.

No wetlands would be affected by the project. Young's Branch stream would be crossed with a bridge, but the abutments would be constructed above the level of ordinary high water to avoid any wetland fill. These abutments may be located in the floodplain. The location of this action is dependent on water and is therefore excepted from further floodplain

compliance. No other development would occur in the floodplain of Young's Branch.

Disturbance of the soil caused by vegetation removal, use of heavy equipment, and soil grading has the potential to result in erosion and stream sedimentation. Also, construction activities would increase noise and traffic on Warrenton Turnpike. All effects would be temporary, minor, and local. To reduce soil erosion and stream sedimentation during construction of visitor facilities, hay bales, silt fences, and sediment traps would be placed in the appropriate areas. Areas in which ground vegetation is destroyed would be regraded to original contours when possible and revegetated with native species.

The introduction of impervious surface materials would increase surface water runoff and might contribute to erosion and the introduction of petroleum products into the nearby stream. This would have a moderate long-term, though intermittent, impact on the site. To reduce the effects of surface water runoff, erosion, and stream pollution following development, the amount of impervious surface materials, particularly those of a petroleum base, would be limited as much as possible, and surfaces would be designed to limit direct drainage into streams.

The construction of an entrance road and interpretive trails would remove a portion of the fields from potential agricultural use. However, no prime or unique agricultural farmland exists here because of the generally poor quality of soils. The majority of the fields would remain in their present use to help maintain the integrity of the historical scene.

The poor engineering suitability of many of the soils on the Brawner farm may require that the soil be replaced along the road alignment to ensure a stable base. In the case of the interpretive building described under alternative B, foundation piers might be needed to ensure a stable base. These soil characteristics might also influence the type, location, and cost of utilities.

The extent of soil concerns would be determined during the design stage when the exact location of facilities would be determined and site-specific sampling could be done. The additional soil disturbance would have minor, short-term impacts at the site.

The National Park Service will work with state, county, and adjacent landowners to protect the visual quality of adjacent lands. Should outside development occur that intrudes on the Brawner farm environment, native vegetative buffer plantings would be used along the farm's borders. Strategic individual or small group plantings of trees might be used within the primary interpretive area to help block a specific visual intrusion from an interpretive point. Decisions to plant within this landscape restoration area should be carefully weighed against the intrusion the trees would make within the historic scene. It would be impossible to shield visitors completely from outside intrusions.

Cultural Resources

Development of the site should provide increased security to the cultural resources because of the daytime presence of park visitors (and staff in alternatives B and C) and better accessibility for after-hours patrol.

Reestablishing the historic landscape, at least within the primary interpretive zone, would improve historical integrity and aid visitor understanding of battle events. Provided restoration efforts are done carefully with archeological monitoring, restoration should provide long-term, major benefits to the visitor experience and have minimal negative impact on cultural resources.

Construction of an entrance road, parking area, interpretive facility, and trails would result in soil disruption that would have the potential for disturbing and destroying archeological resources. This would be a short-term, minor to moderate impact on park resources.

Following the selection of a specific design for a complex, and at least one year before construction, an archeological survey would be made of areas to be impacted by construction so as to ensure, in accordance with NPS policy, that unsuspected resources were not overlooked and destroyed without some documentation of their existence. All construction activities involving soil disturbance would be monitored by an archeologist.

Under the programmatic memorandum of agreement among the National Conference of State Historic Preservation Officers, the Advisory Council on Historic Preservation, and the National Park Service, a memorandum of agreement on the proposed actions of the GMP was approved. Actions flowing from the GMP are considered to be in compliance with section 106 of the National Historic Preservation Act of 1966, as amended, upon completion of documentation in an "Assessment of Effect" form.

Since the memorandum of agreement was finalized, the historical significance of the house on the Brawner site and its relationship to the battle has been called into question as a result of historical, archeological, and architectural investigations. It has also been determined through these investigations that the existing house contains none of the qualities in its own right that would qualify it for inclusion in the National Register of Historic Places. As a result of this new information, each of the four alternatives has requirements deviating from those outlined in the GMP, which would require further consultation under section 106.

Before the Brawner house was removed, as recommended under alternatives A and B, the structure would be well documented through measurements, drawings, and photographs. Demolition activities would be closely monitored to ensure that the original house foundations below and around the existing structure were not damaged. In exposing and stabilizing the original foundations, the procedure would be monitored by archeologists, and the best methods available would be used to permanently stabilize the historic fabric for display.

Alternative A calls for removal of this house so that the original house's foundation can be exposed and interpreted, in keeping with the battle story. This differs from the GMP in that no specific treatment was recommended at the time. The GMP stated that the level of historic structure restoration or preservation would be based on architectural integrity and significance. Because the existing house is not the house associated with the second battle and because it retains no qualities that would make it eligible for the National Register in its own right, the proposed action, although differing from the GMP, is justifiable as a means of returning the battlefield to its historical appearance.

The new interpretive shelter, as recommended in the GMP, is proposed under alternative A to be located near the Brawner house. This location deviates from the GMP.

A new entrance into the site off Warrenton Turnpike and west of the present driveway has been recommended. This deviates from the GMP, which placed the new entrance off Pageland Lane.

Archeological inventory and evaluation of the site is ongoing to determine whether the present driveway is historic. Archeological investigation of the farm outbuildings and orchard has been recommended.

Alternative B also calls for removal of the existing house and interpretation of the original house foundations. A structural frame "ghost" of the house would be constructed above the foundation to give the public an idea of how the Brawner house figured into the battle. This treatment was not discussed in the GMP.

Alternative C calls for the house to be rehabilitated for use as the interpretive facility at the Brawner farm rather than a new facility as called for in the GMP. It would not be restored because visitors might become confused about its relationship to the battle-era house.

Alternative D differs markedly from the GMP in that the house would be removed and no development undertaken. Only landscape restoration to the Civil War period would occur.

Retention of the structure, as recommended in alternative C, would have the benefit of marking the approximate location of the original house and eliminating the need for a modern interpretive shelter. Its presence, though, would be misleading to park visitors, because visitors would assume that this structure is part of the original battlefield scene. Also, as an interpretive facility, greater focus and investment would be placed on the structure than is merited by its significance.

The new entry road would introduce new development onto the site where no other road is known to have been located. This would be a long-term intrusion into the site; however, the road would be built west of the primary battle area and designed into the landscape in such a way that it would have minimal intrusion on the historic scene.

Without a new access road, traffic would be required to use the old farm driveway corridor, resulting in significant intrusion into the prime historic and interpretive landscape. This would have a long-term and major impact on the quality of the historic scene.

CONSULTATION AND COORDINATION

U.S. Corps of Engineers
U.S. Fish and Wildlife Service
Prince William County Planning Office
Prince William County Agronomy Office
Virginia Power Company

APPENDIX A:

PUBLIC LAW 100-647 [H.R. 4333]; November 10, 1988

TECHNICAL AND MISCELLANEOUS REVENUE ACT OF 1988

*For Legislative History of Act, see Report for P.L. 100-647 in
U.S.C.C. & A.N. Legislative History Section.*

An Act to make technical corrections relating to the Tax Reform Act of 1986, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the
United States of America in Congress assembled,*

SECTION 1. SHORT TITLE; ETC.

(a) **SHORT TITLE.**—This Act may be cited as the "Technical and Miscellaneous Revenue Act of 1988".

(b) **DEFINITIONS.**—For purposes of this Act—

(1) **1986 CODE.**—The term "1986 Code" means the Internal Revenue Code of 1986.

(2) **REFORM ACT.**—Except where incompatible with the intent, the term "Reform Act" means the Tax Reform Act of 1986.

(c) **CLERICAL AMENDMENT.**—Paragraph (29) of section 7701(a) of the 1986 Code is amended by striking out "of 1954" and inserting in lieu thereof "of 1986".

(d) **TABLE OF CONTENTS.**—

TITLE I—TECHNICAL CORRECTIONS TO TAX REFORM ACT OF 1986

- Sec. 1001. Amendments related to title I of the Reform Act.
- Sec. 1002. Amendments related to title II of the Reform Act.
- Sec. 1003. Amendments related to title III of the Reform Act.
- Sec. 1004. Amendments related to title IV of the Reform Act.
- Sec. 1005. Amendments related to title V of the Reform Act.
- Sec. 1006. Amendments related to title VI of the Reform Act.
- Sec. 1007. Amendments related to title VII of the Reform Act.
- Sec. 1008. Amendments related to title VIII of the Reform Act.
- Sec. 1009. Amendments related to title IX of the Reform Act.
- Sec. 1010. Amendments related to title X of the Reform Act.
- Sec. 1011. Amendments related to parts I and II of subtitle A of title XI of the Reform Act.
- Sec. 1011A. Amendments related to parts III and IV of subtitle A of title XI of the Reform Act.
- Sec. 1011B. Amendments related to subtitles B and C of title XI of the Reform Act.
- Sec. 1012. Amendments related to title XII of the Reform Act.
- Sec. 1013. Amendments related to title XIII of the Reform Act.
- Sec. 1014. Amendments related to title XIV of the Reform Act.
- Sec. 1015. Amendments related to title XV of the Reform Act.
- Sec. 1016. Amendments related to title XVI of the Reform Act.
- Sec. 1017. Amendments related to title XVII of the Reform Act.
- Sec. 1018. Amendments related to title XVIII of the Reform Act.
- Sec. 1019. Effective date.

TITLE II—AMENDMENTS RELATED TO TAX PROVISIONS IN OTHER LEGISLATION

- Sec. 2001. Amendments related to Superfund Revenue Act of 1986.
- Sec. 2002. Amendments related to Harbor Maintenance Revenue Act of 1986.
- Sec. 2003. Amendments related to Omnibus Budget Reconciliation Act of 1986.
- Sec. 2004. Amendments related to the Revenue Act of 1987.
- Sec. 2005. Amendments related to Pension Protection Act and full funding limitations
- Sec. 2006. Amendments related to section 9201 of the Omnibus Budget Reconciliation Act of 1987.

- (21) Item 907.69 (relating to sodium tartrate).
- (22) Item 907.76 (relating to lactulose).
- (23) Item 910.00 (relating to diamond tool and drill blanks).
- (24) Item 911.50 (relating to unwrought lead).
- (25) Item 912.13 (relating to certain power-driven flat knitting machines and parts thereof).

(b) OTHER EXTENSIONS.—

(1) Item 907.00 (relating to p-hydroxybenzoic acid) is amended by striking out "9/30/85" and inserting in lieu thereof "12/31/88".

(2) Item 907.22 (relating to caffeine) is amended by striking out "On or before 12/31/87" and inserting in lieu thereof "On or before the earlier of 12/31/92 or the date on which the rate of duty imposed by the European Communities on articles described in item 437.02 exceeds the rate of duty imposed by the United States on such articles that was in effect on 6/30/88"

TITLE X—MANASSAS NATIONAL BATTLEFIELD PARK

SEC. 10001. SHORT TITLE.

This title may be cited as the "Manassas National Battlefield Park Amendments of 1988".

SEC. 10002. ADDITION TO MANASSAS NATIONAL BATTLEFIELD PARK.

The first section of the Act entitled "An act to preserve within Manassas National Battlefield Park, Virginia, the most important historic properties relating to the battle of Manassas, and for other purposes", approved April 17, 1954 (16 U.S.C. 429b), is amended—

(1) by inserting "(a)" after "That"; and

(2) by adding at the end thereof the following:

"(b)(1) In addition to subsection (a), the boundaries of the park shall include the area, comprising approximately 600 acres, which is south of U.S. Route 29, north of Interstate Route 66, east of Route 705, and west of Route 622. Such area shall hereafter in this Act be referred to as the 'Addition'.

"(2)(A) Notwithstanding any other provision of law, effective on the date of enactment of the Manassas National Battlefield Park Amendments of 1988, there is hereby vested in the United States all right, title, and interest in and to, and the right to immediate possession of all the real property within the Addition.

"(B) The United States shall pay just compensation to the owners of any property taken pursuant to this paragraph and the full faith and credit of the United States is hereby pledged to the payment of any judgment entered against the United States with respect to the taking of such property. Payment shall be in the amount of the agreed negotiated value of such property or the valuation of such property awarded by judgment and shall be made from the permanent judgment appropriation established pursuant to 31 U.S.C. 1304. Such payment shall include interest on the value of such property which shall be compounded quarterly and computed at the rate applicable for the period involved, as determined by the Secretary of the Treasury on the basis of the current average market yield on outstanding marketable obligations of the United States of comparable maturities from the date of enactment of the Manassas

National Battlefield Park Amendments of 1988 to the last day of the month preceding the date on which payment is made.

"(C) In the absence of a negotiated settlement, or an action by the owner, within 1 year after the date of enactment of the Manassas National Battlefield Park Amendments of 1988, the Secretary may initiate a proceeding at anytime seeking in a court of competent jurisdiction a determination of just compensation with respect to the taking of such property.

"(3) Not later than 6 months after the date of enactment of the Manassas National Battlefield Park Amendments of 1988, the Secretary shall publish in the Federal Register a detailed description and map depicting the boundaries of the Addition. The map shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior.

"(c) The Secretary shall not allow any unauthorized use of the Addition after the enactment of the Manassas National Battlefield Park Amendments of 1988, except that the Secretary may permit the orderly termination of all operations on the Addition and the removal of equipment, facilities, and personal property from the Addition".

SEC. 10003. VISUAL PROTECTION.

Section 2(a) of the Act entitled "An Act to preserve within Manassas National Battlefield Park, Virginia, the most important historic properties relating to the battle of Manassas, and for other purposes", approved April 17, 1954 (16 U.S.C. 429b-1), is amended—

(1) by inserting "(1)" after "(a)"; and

(2) by adding at the end thereof the following:

"(2) The Secretary shall cooperate with the Commonwealth of Virginia, the political subdivisions thereof, and other parties as designated by the Commonwealth or its political subdivisions in order to promote and achieve scenic preservation of views from within the park through zoning and such other means as the parties determine feasible".

SEC. 10004. HIGHWAY RELOCATION.

(a) **STUDY.**—The Secretary of the Interior (hereafter in this section referred to as the "Secretary"), in consultation and consensus with the Commonwealth of Virginia, the Federal Highway Administration, and Prince William County, shall conduct a study regarding the relocation of highways (known as routes 29 and 234) in, and in the vicinity of, the Manassas National Battlefield Park (hereinafter in this section referred to as the "park"). The study shall include an assessment of the available alternatives, together with cost estimates and recommendations regarding preferred options. The study shall specifically consider and develop plans for the closing of those public highways (known as routes 29 and 234) that transect the park and shall include analysis of the timing and method of such closures and of means to provide alternative routes for traffic now transecting the park. The Secretary shall provide for extensive public involvement in the preparation of the study.

(b) **DETERMINATION.**—Within 1 year after the enactment of this Act, the Secretary shall complete the study under subsection (a). The study shall determine when and how the highways (known as routes 29 and 234) should be closed.

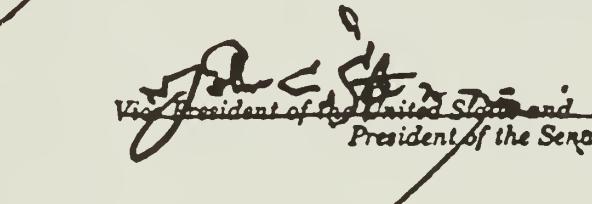
(c) **ASSISTANCE.**—The Secretary shall provide funds to the appropriate construction agency for the construction and improvement of

the highways to be used for the rerouting of traffic now utilizing highways (known as routes 29 and 234) to be closed pursuant to subsection (b) if the construction and improvement of such alternatives are deemed by the Secretary to be in the interest of protecting the integrity of the park. Not more than 75 percent of the costs of such construction and improvement shall be provided by the Secretary and at least 25 percent shall be provided by State or local governments from any source other than Federal funds. Such construction and improvement shall be approved by the Secretary of Transportation.

(d) AUTHORIZATION.—There is authorized to be appropriated to the Secretary not to exceed \$30,000,000 to prepare the study required by subsection (a) and to provide the funding described in subsection (c).



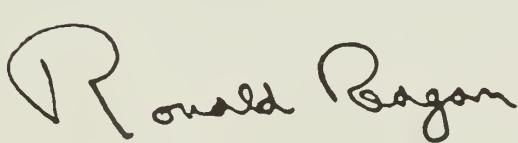
Speaker of the House of Representatives.



Vice President of the United States and
President of the Senate pro tempore

APPROVED

NOV 10 1988



Ronald Reagan

APPENDIX B: BRAWNER FARM SOILS

(The following soil descriptions are excerpts from Soils of Prince William County, Virginia.)

48A1 or 48B1 or 48B2 Jackland Silt Loam, 0 to 7 percent slopes

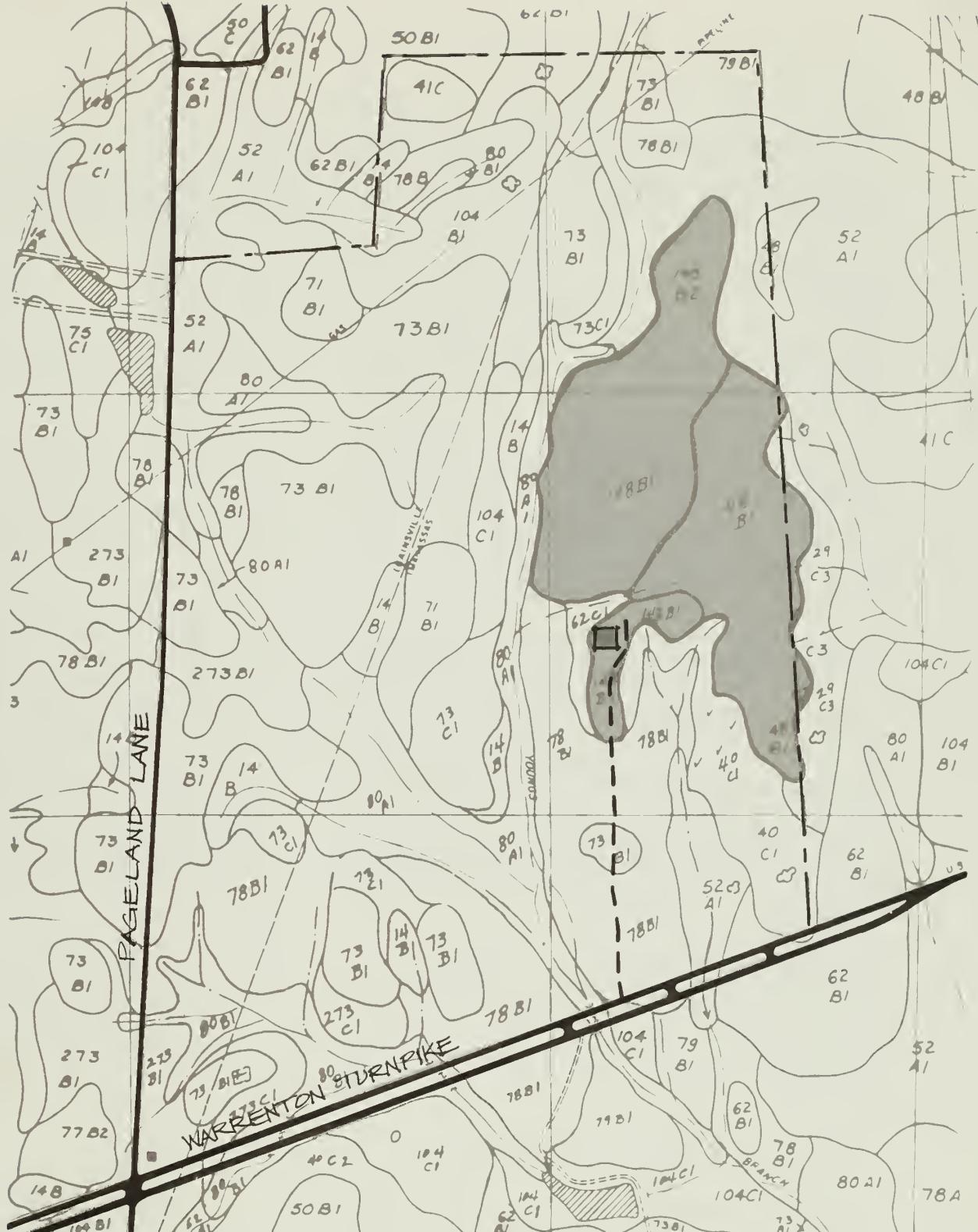
Engineering Suitability: This soil is poorly suited to many engineering uses. It is poor for homesites, basements, normal footings, sanitary landfills, septic tank drainfield areas, and fill material. It is fair for lawns and shrubs. The surface layer is fair for topsoil material and should be saved at construction sites for finish grading. Main problems affecting the use suitability of this soil are high content of shrink-swell clay, seasonal water table and very slow permeability. When used for building sites, roads, and similar uses, the clayey subsoil should be replaced with good quality compacted fill material. Footings should be placed on firm soil materials. Adequate drainage is needed where vegetated areas are used.

Agricultural Suitability: This Jackland soil is a poor agricultural soil. It is generally poor for most row and grain crops. It is fair for hay and pasture. Wetness, both in the spring and fall, commonly interferes with seeding and harvest operations. Adequate drainage is difficult to establish due to very slow permeability of the subsoil. It is medium acid and moderately low in plant nutrients. Most of the acreage is in hay and pasture or in woodland.

148B1 or 148B2 Jackland-Haymarket Complex, 2 to 7 percent slopes

Engineering Suitability: This Jackland-Haymarket complex is poor for many engineering uses. It is poor for basements, normal footings, roadfill material, fill material for dams, septic tank drain field areas and sanitary landfills. High content of shrink-swell clay, very slow internal drainage and wetness are the main problems. Where buildings are to be built, footings should be placed on the substratum or on bedrock and adequate drainage should be provided for basements, or other underground structures. Where roads cross this map unit the subsoil layer should be replaced with good quality, compacted fill materials. At construction sites the surface should be saved for topsoil material for finish grading.

Agricultural Suitability: This map unit is a poor agricultural soil. It is best suited for permanent sod crops. Both soils are medium acid and moderately low in plant nutrients. Surface drainage is needed for best yields. Good soil and water conservation practices should be used.



48A1, B1, B2 - Jackland Silt Loam } poor for agriculture
148B1, B2 - Jackland-Haymarket Complex } and many engineering uses

N

0 200 400 600 FEET

BRAWNER FARM SOILS

MANASSAS NATIONAL BATTLEFIELD MAP
NATIONAL PARK SERVICE / UNITED STATES DEPARTMENT OF THE INTERIOR

78A1 or 78B1 Dules Silt Loam, 0 to 4 percent slopes

Engineering Suitability: This Dulles soil is fair to poor for many engineering uses. It is poor for homesites, basements, septic tank drainfield areas, sanitary landfills, and road fill materials. It is fair for normal footings, lawns, and shrubs. Seasonal water table, high content of silt and clay and slow permeability are main problems that affect the use suitability of this soil. High silt content causes this soil to be difficult to compact for road fill materials. The surface layer is fair for topsoil material and should be saved at construction sites for finish grading.

Agricultural Suitability: This Dulles silt loam is a fair agricultural soil. The main problem is seasonal wetness which interferes with planting and harvesting operations. Due to high silt content, small grains are subject to frost heave. It is acid and low in plant nutrients but is responsive to lime and fertilizer applications. Artificial drainage is needed for best crop production. This soil is fairly easy to conserve.

73B1 or 73B2 Arcola Silt Loam, 2 to 7 percent slopes

Engineering Suitability: This soil is fair to good for many engineering uses. It is good for homesites and footings. It is fair for road fill materials, basements, lawns, and shrubs. It is fair to poor for septic tank drain field areas. Depth to bedrock and droughtiness are its main problems. Adequate drainage should be provided for deep excavations. High content of silt may interfere with compaction for fill uses. It is poor for sanitary landfills due to shallowness. The surface layer is fair for topsoil material and should be saved at construction sites for finish grading.

Agricultural Suitability: This Arcola soil is a fair agricultural soil. Its best use is for permanent sod crops but in years of adequate rainfall, row crops make fair yields. Frost heave can be expected with small grains. This soil is strongly acid and low in plant nutrients but responsive to lime and fertilizer applications. Good soil and water conservation should be practiced when tillage operations are used.

73C1 or 73C2 Arcola-Nestoria Complex, 7 to 15 percent slopes

Engineering Suitability: This map unit is poor to good for engineering uses. It is good for homesites and footings. It fair for road fill materials, basements, lawns, and shrubs. It is fair to poor for septic tank drain field areas. Depth to bedrock and droughtiness are its main problems. Adequate drainage should be provided for basements. High content of silt may interfere with compaction for fill uses.

It is poor for sanitary landfills. The surface layer is fair for topsoil material and should be saved for finish grading.

Agricultural Suitability: This Arcola-Nestoria Complex is a fair to poor agricultural soil. Its best use is for hay and pasture. Frost heave is common in cold, wet winters. It is too droughty for profitable yields of row crops. This soil is strongly acid and low in plant nutrients. Good soil and water conservation should be practiced.

71B1 or 71B2 Panorama Silt Loam, 2 to 7 percent slopes

Engineering Suitability: This Panorama soil is good for many engineering uses. It is fair to good for homesites, footings, basements, lawns, shrubs, fill materials and other similar uses. It is questionable for septic tank drainfield areas due to slow permeability. Adequate drainage should be provided for basements and other excavated uses. High content of silt may interfere with compaction of road fill. It is poor for sanitary landfill areas due to shallowness to rock. The surface layer is fair top soil materials and should be saved at construction sites for finish grading.

Agricultural Suitability: This Panorama soil is a good agricultural soil. This soil is strongly acid and low in plant nutrients but crops are responsive to lime and fertilizer applications. Frost heave is common for fall-seeded crops. Good soil and water conservation should be practiced.

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As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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